

# SESAR update

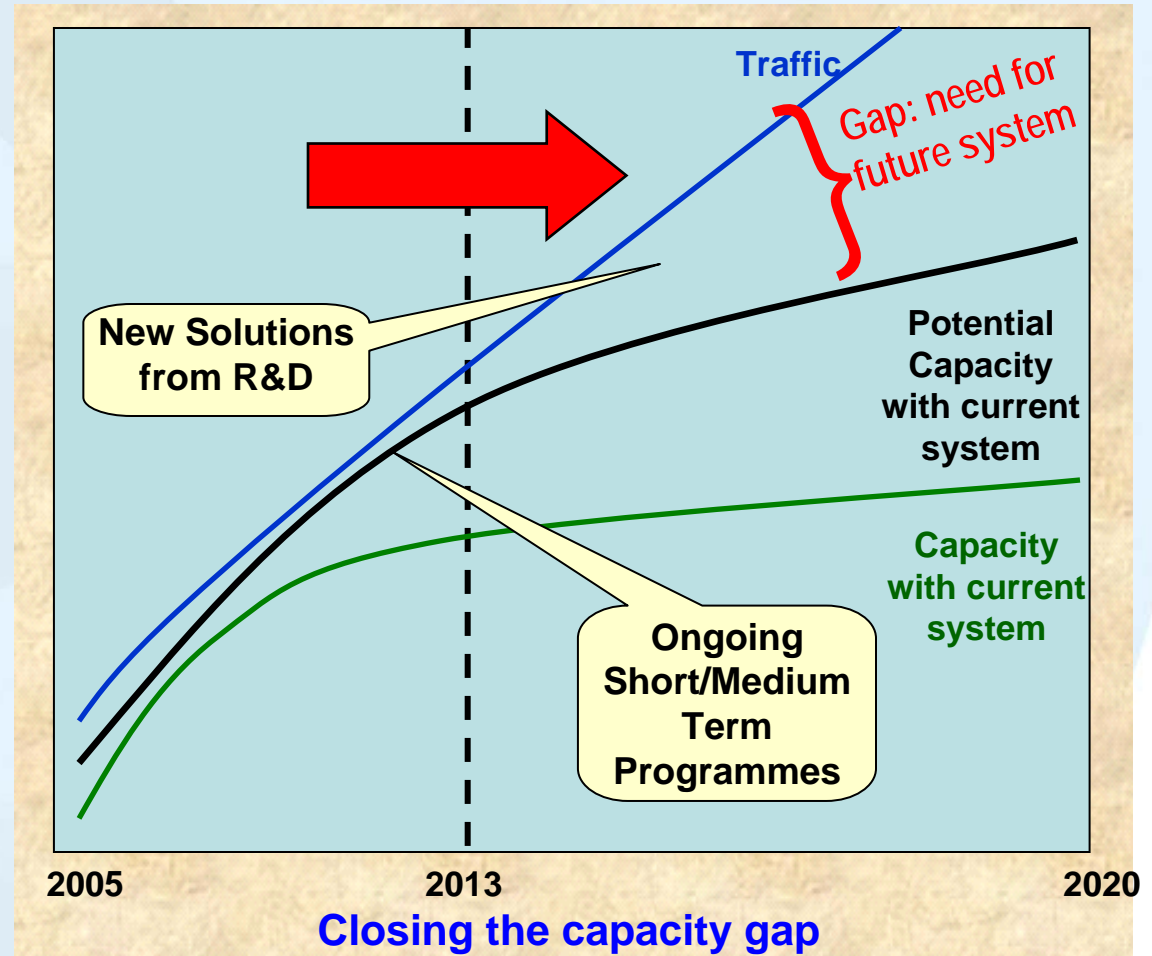
Colin Meckiff

ICNS Conference

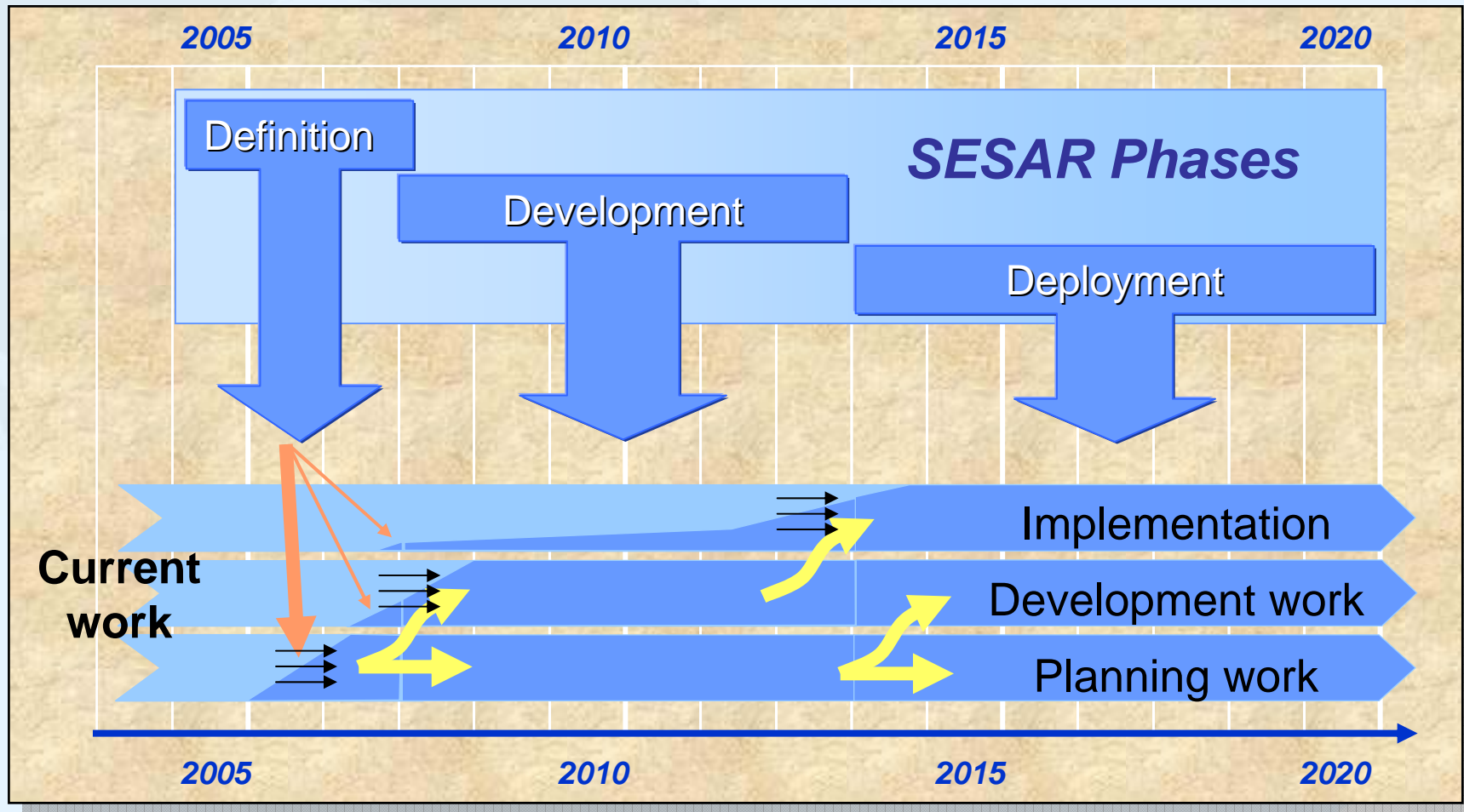
Herndon, VA, 1–3 May 2007

# A New ATM System is Needed

- Traffic forecast to double by 2025
- Issues
  - ATC pushed to its limits
  - Airspace fragmentation
  - Obsolescent technologies



# SESAR Cohesive Programme for Stepwise Implementation



# SESAR Definition Phase

- Under the responsibility of EUROCONTROL
- Co-funded by EC
- Industry-wide consortium
  - with substantial EUROCONTROL effort contribution

€ 60 Million  
2 years  
300 man-year



+ Project Associates:  
ATM Research Centres,  
Military ATM,  
staff/professional org.,  
**US Industry (Boeing,  
Honeywell, Rockwell)**  
+ Sub-Contractors

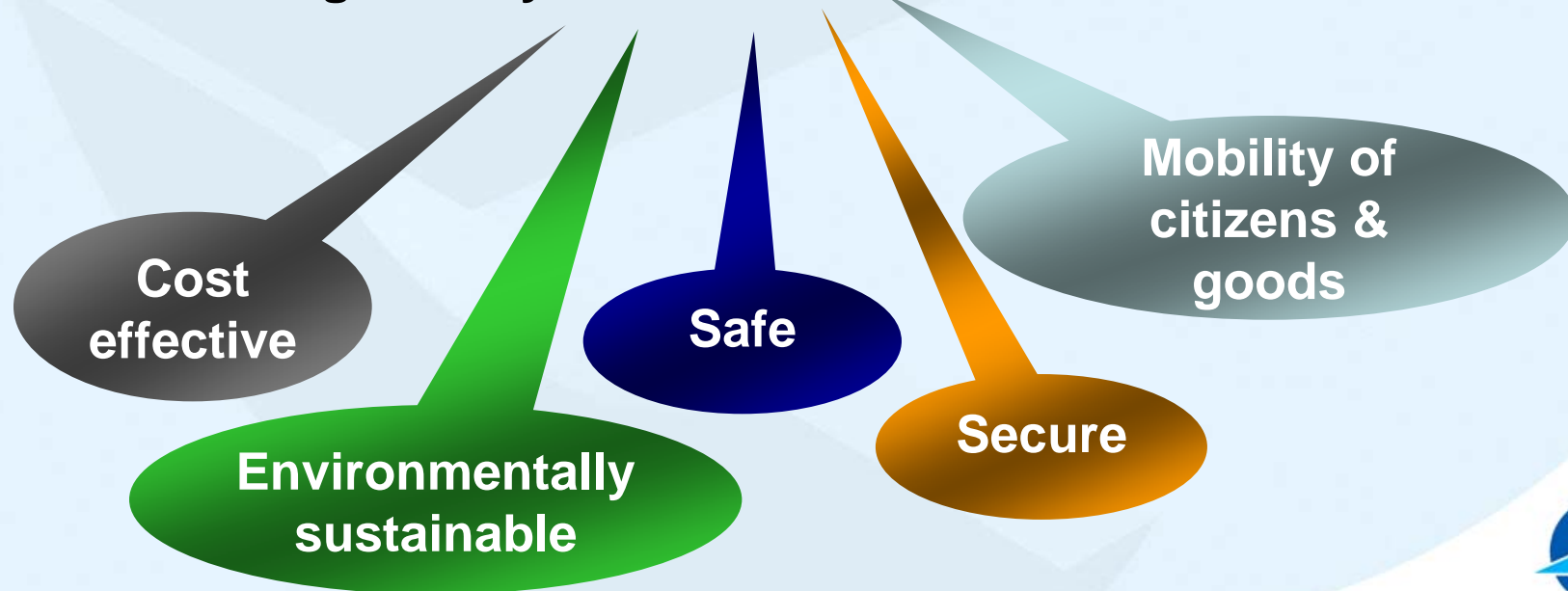


# SESAR Definition Phase Main Milestones and Deliverables



# The SESAR Vision

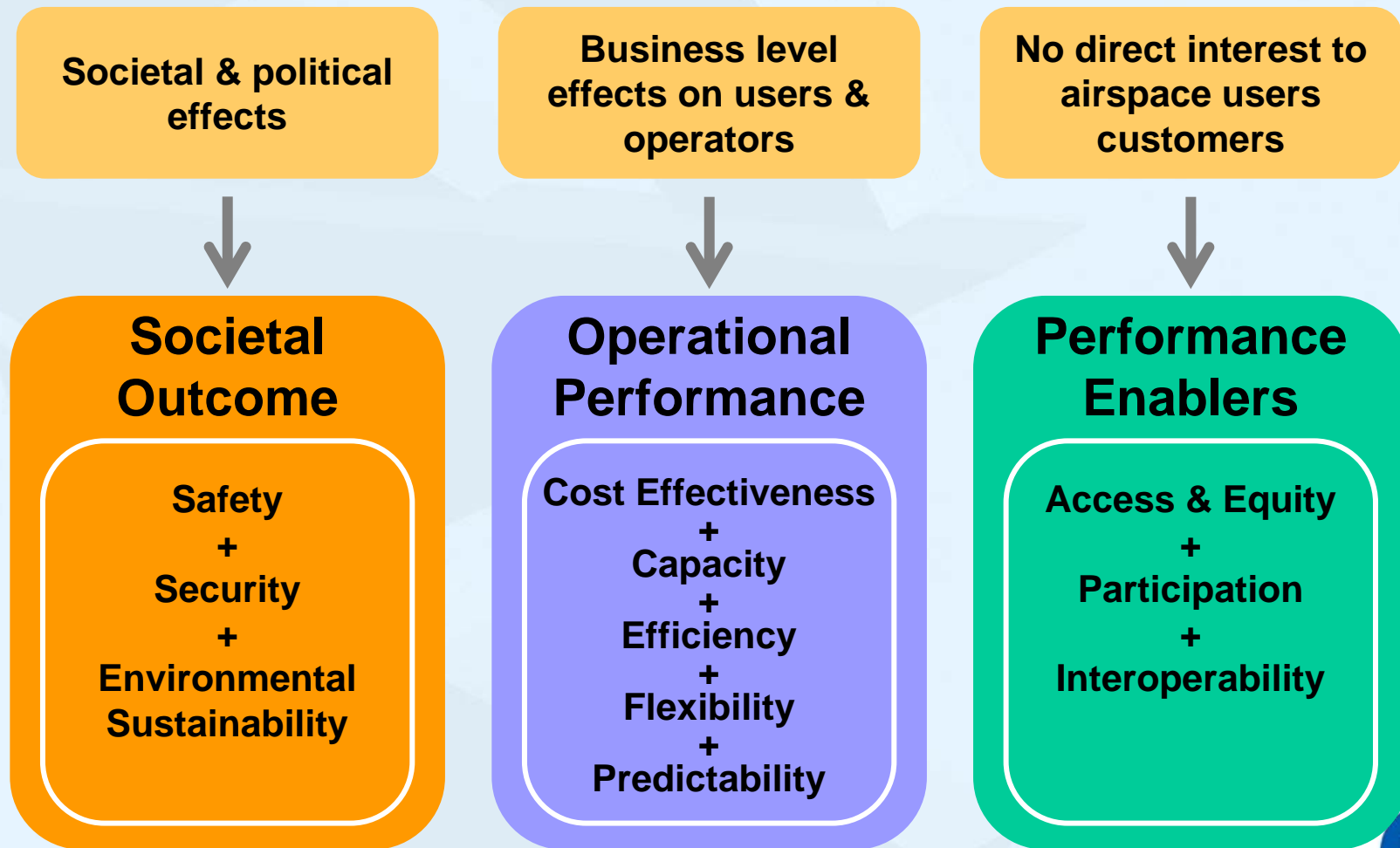
- Achieve a **performance based** European ATM system
  - Built in **partnership** 
- To best support **expectations** from **society** and states including military and all other **aviation activities**



# Performance Partnership is Key

- Planning & operational decisions interact
  - All are based on the flight trajectory
- ATM Performance Partnership must
  - Include well defined roles and responsibilities
  - Be based on a shared set of values & priorities and the recognition of network interactions
- Leaning on
  - An ATM Institutional Framework caring about societal interests
  - An ATM Business Framework managing all phases of European ATM system lifecycle

# 11 SESAR Key Performance Areas (same as ICAO)





# Quantified Performance Targets

*Derived from needs of  
society and airspace users*

*Progressive deployment,  
when/where needed*

2020 targets:

- ✓ Capacity: + 73% overall
- ✓ Safety: improvement factor 3
- ✓ Costs to airspace users: - 50% per flight

**Design Goals for scalable future capability:**

- Safety: factor 10
- Capacity: handle 3 times traffic
- Environment: - 10% effects per flight

**Also addressed:**  
Security, Efficiency, Flexibility,  
Predictability, Global  
Interoperability,  
Access, Equity, Participation

# SESAR Development Phase

## SESAR Joint Undertaking, a Public-Private Partnership

- **Founding Members: EC & EUROCONTROL**
- **Other members: industry, third states**
- **Budget: €2,100 million over 8 years**
  - **Around 1/3 EC, 1/3 EUROCONTROL, 1/3 industry/3rd parties**

## JU Tasks

- **Organise and coordinate development activities, following ATM Master Plan**
- **Ensure necessary funding**
- **Monitor ATM Master Plan execution**
- **Ensure involvement of all stakeholders**
- **Organise technical work of R&D, validation and studies**

# Cost Perspective for Deployment Phase

Definition  
Phase

60 M€  
(2 years)

Development  
Phase

2.1 B€  
(8 years)

Deployment  
Phase

~20 B€  
till 2020

- Current ATM R&D spending: ~200M€/year (mainly research)

- Current level of investment: close to 1B€/ year

# Epilogue: Key elements of the Future Concept

- **The Business Trajectory** at the heart of the Concept of Operations, synthesises ATM constraints and customer requirements
- **The Human** remains central and becomes the ultimate decision-maker
- **A Powerful Information Management Network** provides one common language
- **Optimized Use of Airports** reduces environmental impact while enhancing cost efficiency
- Advanced use of **Prediction Capabilities** creates higher capacity and efficiency
- **Maximum Use of New Technology/Tools** to support air and ground Operators

**‘Final’ SESAR Concept of Operations coming soon!**

